

## CLAIMS

We claim:

1. A method of manufacturing a plastics floor tile, the method comprising the steps of  
5 cutting a plurality of discrete plastics components, each said component comprising a wear layer having an upper surface and at least one backing layer having a lower surface, from one or more sheets of a plastics material, assembling said components together to form at least a portion of a floor tile of the desired shape and design, securing said components together relative to one another by the application of at least one portion of a  
10 joining film to said lower surface of the assembled said components so that said joining film spans at least the neighboring edges of adjacent said components.
2. The method of Claim 1 wherein said joining film is coated with a thermally labile polymeric coupling agent.
3. The method of Claim 1 further comprising the application of heat and pressure for a  
15 period of about 7-15 seconds to cause said coupling agent to react with said joining film and said lower surface.
4. The method of Claim 3 wherein the temperature used is about 130-170°C and the pressure used is about 4-6 Mpa.
5. The method of Claim 3 wherein while applying heat and pressure to said lower surface of  
20 at least a portion of assembled said components, said upper surface of said portion is cooled to ambient temperature (about 20-25°C).
6. The method of Claim 5 wherein the cooling is carried out by use of cold water.
7. The method of Claim 3 wherein pressure is applied by means of a rubber press.

8. The method of claim 2, characterized in that said joining film is provided with perforations.
9. The method of claim 1 further comprising the application of heat and pressure for a period of about 10 seconds to cause said coupling agent to react with said joining film and said lower surface.
10. The method of Claim 3 wherein the temperature used is about 150°C and the pressure used is about 5 Mpa.
11. The method of claim 1 further comprising the step of chamfering abutting edges of said upper surface of said components
12. A plastics floor tile comprising a plurality of discrete plastics components, each said component comprising a wear layer having an upper surface and at least one backing layer having a lower surface, said components secured together relative to one another via at least one portion of a joining film applied to the lower surface of said components formed by the process of cutting said components from one or more sheets of a plastics material, assembling said components together to form at least a portion of a floor tile of the desired shape and design, applying said at least one portion of a joining film to said lower surface of said components so that said joining film spans at least the neighboring edges of adjacent said components.
13. The plastics tile of claim 12 wherein said joining film is of the same plastics material as said lower surface.
14. The plastics floor tile of claim 12 wherein said joining film is made of a plastics material having physical properties compatible with those of said lower surface.

15. The plastics floor tile of claim 12 wherein said joining film is about 60 to 85 microns thick.
16. The plastics floor tile of claim 12 wherein said joining film is about 75 microns thick.
17. The plastics floor tile of claim 12 wherein said joining film is coated with a thermally  
5 labile polymeric coupling agent.
18. The plastics floor tile of claim 12 wherein said joining film is provided with perforations.
19. The plastics floor tile of claim 12 wherein said joining film is non-continuous and comprises a small number of pieces of film, each said piece spanning neighboring edges of adjacent said components.
- 10 20. The plastics floor tile of claim 12 wherein said lower surface is roughened.
21. The plastics floor tile of claim 12 wherein said component comprises a top wear layer of translucent plastics material, a printed decorative layer, and at least one backing layer.
22. The plastics floor tile of claim 12 wherein said plastics material is selected from the group consisting of polyvinyl chloride, polyolefins, acrylic polymers, polycarbonate  
15 polymers and ionomeric polymers.